



duPont Manual High School



Scheduling Booklet



2012-2013



Letter from Principal Larry A. Wooldridge

Dear Manual/YPAS Families,

Let me begin by challenging you to push yourself academically like you never imagined. Inside this scheduling booklet, you will have access to educational opportunities that will prepare you for a lifetime of growth and success.

Manual/ YPAS has an excellent educational program taught by a talented and dedicated faculty. Our school is committed to providing each student with an education in which rigor and relevance is the norm, creative thinking is encouraged, and ideas are critically analyzed and evaluated. High school is a special time. It is a time of academic and personal challenge as well as a time to make important decisions about future plans. One of our goals at Manual/YPAS is to serve and challenge all of our students. Carefully examine the course offerings listed inside this booklet. The courses you decide upon today will prepare you for opportunities tomorrow.

Manual/YPAS students benefit from the following:

- Each unique magnet offers a wide range of academic classes, including the largest number of Advanced Placement courses offered in the state, four foreign languages, and a variety of college preparatory electives.
- College enrollment during the day is possible for upperclassmen via the University of Louisville Educational Park Program. In addition, students can take advantage of numerous dual credit offerings available through local universities and colleges.
- Manual/YPAS optimizes instructional time by following the "A/B" block schedule. This schedule offers four courses on "Red Day" and four different courses on "White Day" with classes meeting for 90 minutes. This allows instructors to delve further into material than the normal 55-minute block.

The opportunities available to the Manual/YPAS student are limitless. Students, I encourage you to meet with your parents and decide on courses that will challenge you both intellectually and socially. As always, our counselors will be available to answer any questions or concerns you may have during the process.

Go Crimsons,
Larry A. Wooldridge, Principal
Manual/YPAS

Creed of duPont Manual:

I believe in duPont Manual as a school of high standards of scholarship, sportsmanship, and service, where all work for the common good.

I, therefore, pledge myself to obey established authority, accept responsibility for my own conduct, and so honor our colors that the Crimson and White will ever be the symbol of a school of lofty purpose and democratic ideas.



Scheduling Instructions

This is a course offering booklet that has been developed to help you determine the best options in reaching your goals. It contains important information regarding the academic offerings at duPont Manual High School. This booklet will assist in creating the best possible learning plan for next school year. It is the goal of our school to provide each student with an opportunity to prepare for his/her further education, upon graduation from high school. Programs can be tailored to meet the needs and requests of each and every student. As you select and plan your high school career, pay close attention to high school graduation requirements as well as courses that most closely align with your magnet program, and career and personal interests. In addition to core courses, the school offers a wide variety of rich electives. These electives are open to all students, dependent upon any specific course prerequisites or what your individual schedule will accommodate. Read the guide thoroughly with your parents, and then create a schedule best suited for your interests and needs (remember to have alternates). Counselors, teachers, and administrators are available to answer all your questions and guide you. **(Full Course Descriptions are available on-line at www.dupontmanual.com , click on Counselors, then Scheduling.)**

1. Students and their parents must assume the responsibility for providing the school with a schedule designed to meet graduation requirements. If a schedule is not completed according to instructions and given to the counselor by the time and date established as a deadline, a schedule will be completed for you. This eliminates your choice of courses. Schedules made out in this manner will not be changed.
2. Students are responsible for meeting with their counselor and making up requirements previously failed.
3. All students are required to sign up for a full schedule (adjustments will be made later for UL or for student aides). Courses are based on one year's work (36 weeks) with a progress report at 6 and 12 weeks each semester. Students receive ½ credits for successful completion of a class each semester.
4. Current teachers of English, Math, Science, Social Studies, Foreign Language and specialized electives will recommend appropriate courses and will sign your Student Course Request sheet where indicated.
5. Make sure you place an X and highlight eight (8) courses and then place an A1, A2, and an A3 for three alternate course choices. A parent/guardian must sign the Student Course Request sheet.

HIGH SCHOOL GRADUATION REQUIREMENTS

In addition to the credit requirements, students must also meet the diploma requirements outlined in this section.

Content Area	# of Credits
English	4
Math (3 credits and the successful completion of a 12 th grade math course required. Students must have taken Algebra 1, Geometry, Algebra 2, or a more advanced math course)	3
Science	3
Social Studies (World Civ., U.S. History and one of the following: Exploring Civics, Government, Geography, or Economics)	3
Health and PE (½ credit of Health, ½ credit of PE)	1
Humanities	1
Electives (In addition to the above courses, college-bound students are encouraged to take, as part of their elective course selections, additional course work in math, science, foreign language, arts, or computer literacy. Academic or Career: A four-course sequence of electives connected to his/her academic/career interest goals as listed on their ILP.)	7
Total	22

DIPLOMA REQUIREMENTS

Students must:

1. Meet the minimum requirements of the KDE Program of Studies, which are 22 credits.
2. Complete the Individual Learning Plan (ILP) to 100% each year.
3. If student does not meet the college readiness benchmarks for English, Language Arts, and/or Mathematics, the student shall take a transitional course or intervention in that subject area.
4. Students must complete a writing portfolio for graduation.
5. Technology Competency: Students must demonstrate performance-based competency in technology in one of the following ways:
 - a. Before entering high school: demonstrate proficiency on the JCPS grade-eight technology assessment.
 - b. During high school: either earn IC3 certification or successfully completing a high school Computer & Technology Applications course.

COURSE LEVEL DESCRIPTIONS

Comprehensive	Comprehensive is designed for students wanting to earn a basic high school diploma.
Honors Program (HNR)	These courses are challenging, college preparatory designed for the college-bound student.
Advance Program (ADV)	This program is designed to provide accelerated instruction for academically gifted and talented students.
Advanced Placement (AP)	The advanced placement courses provide the most rigorous curriculum at duPont Manual High School. AP Courses are developed and sanctioned by the College Board, requiring special teacher training and a prescribed and accelerated curriculum, culminating with each student taking an AP Exam in May. Students enrolling in AP courses should be self-motivated, demonstrate strong reading and writing skills, and be willing to devote the time necessary for success.

ADVANCE PROGRAM

For those students who qualify through JCPS, the Advance Program offers the opportunity to follow a stimulating curriculum designed for the academically gifted. **A minimum of 12 credits must be earned in Advance Program classes in at least three of the following areas- English, Math, Science, Social Studies, and World Language. Advanced Humanities is also required for the Advance Program.** Students are required to take a minimum of **three** Advanced Program classes per semester. Advanced Placement classes also satisfy this requirement. A cumulative GPA of 3.0 (B) is required to remain in the program. Students must also fulfill all of the diploma requirements. *Note: Only a total of 12 advanced credits are REQUIRED.

COMMONWEALTH DIPLOMA

The Commonwealth Diploma is unique to the state of Kentucky. The intent of the diploma is to recognize those students possessing both superior academic talents and superior drive to accomplish consistent, outstanding academic performance. The following is the summation of the requirements as adopted by the Kentucky Board of Education:

1. Successful completion of at least 22 approved credits, including all the minimum requirements for high school graduation.
2. Successful completion of all minimum requirements of the pre-college curriculum.
3. Successful completion of at least 4 courses as described in the Advanced Placement Program Course Description booklets of the College Entrance Examination Board: a. English – 1 course; b. Science or Math – 1-course; c. World Language – 1 course; and d. Other – 1 course.
4. Successful completion (score of 3 or above) of three AP exams in the above subject areas.

ADVANCED PLACEMENT GENERAL INFORMATION

Typically a score of three or higher (on a scale of five) on the exam is considered “passing.” Many schools will grant college credit or placement for a passing score, check with your specific school for credit information. Exams are administered in May. A fee is associated with each exam taken.

ADVANCED PLACEMENT COURSES (27)

duPont Manual High School currently offers the following Advanced Placement courses:

Art History	European History	Physics B
Biology	French Language	Psychology
Calculus AB	Government & Politics: Comparative	Spanish Language
Calculus BC	Government & Politics: United States	Statistics
Chemistry	Human Geography	Studio Art 2-D
Computer Science A	Latin Language Vergil	Studio Art 3-D
English Language and Composition	Macroeconomics	Studio Art Drawing
English Literature and Composition	Microeconomics	United States History
Environmental Science	Music Theory	World History

High School Grading System

Score	Standard Score		College Scale*	
A	93 – 100%	4.0	90 – 100%	5.00
B	86 – 92%	3.0	80 – 89%	3.75
C	79 – 85%	2.0	70 – 79%	2.50
D	70 – 78%	1.0	60 – 69%	1.25
U	0 – 69%	0	0 – 59%	0

*Weighted grades and the College Grading Scale are utilized in Advanced Placement courses only. Both the weighted and unweighted GPA's will appear on the official transcript. In addition, while JCPS does not individually rank senior students in each school, schools are encouraged to identify ranking by percentile for colleges and universities (e.g. top 10%). Any student earning a weighted cumulative high school GPA of 4.0 or greater qualifies for Valedictorian. This calculation includes weighted GPAs.

Grade Reporting

A 6-week Progress Report and a 12-week Progress Report are distributed during each semester. For our school, the 12-week Progress Report is not a separate grade from the 6-week Progress Report; it is a cumulative report of all work completed during the 12-week period. A final semester grade is a cumulative report of student progress for the half credit earned during the 18-week period and is recorded on the student's high school VISI (permanent) Record. If a student is exhibiting unsatisfactory performance or is experiencing changes in performance, parents/guardians must be notified by the teacher in a timely manner prior to distribution of the progress report or report card.

High School Student Support

Extended School Services (ESS)

■ High school students are given the opportunity to receive ESS: as an intervention strategy throughout the year; if students are attempting and failing a course that is needed for graduation; and if students received an Incomplete at the end of the semester. The intent of ESS instruction is to collaborate with the teacher and subject area goals of the regular classroom in which the student is having difficulty. The ESS program provides opportunities for the student to put learning in-context to ensure that not only basic skills are acquired, but also comprehension is gained.

Course Enrollment: Points of Emphasis

■ A request for a student's schedule change must occur within the first ten school days of the semester.

■ Students who elect to work as teacher assistants in lieu of taking a class must obtain approval from a parent/guardian and the counselor.

NCAA Clearinghouse

(Essential if you want to play sports in college!)

1. Apply online (www.ncaa.org)
2. Download and complete the release form.
3. Take the completed release form to the counselor's office with a stamped, addressed envelope. The counseling office will send the transcript.
4. Download the final transcript form and keep it until NCAA asks for it at the end of the year.
5. Make sure you complete the required core courses (see below).
6. Make sure you have the minimum test scores and GPA (available on the NCAA website).
7. Look at www.ncaaclearinghouse.net to make sure you are taking approved NCAA-approved core courses.

NCAA Division II Core Courses (14)

- 3 years of English
- 2 years of Math (Algebra I or higher)
- 2 years of Natural/Physical Science
- 2 years of additional English, Math, or Science
- 2 years of Social Science
- 3 years of additional core courses (including world language)

NCAA Division I Core Courses (16)

- 4 years of English
- 3 years of Math (Algebra I or higher)
- 2 years of Natural/Physical Science
- 1 year of additional English, Math, or Science
- 2 years of Social Science
- 4 years of additional core courses (including world language)

Scheduling Directions

Please complete all of the following on the *Student Course Requests* sheet.

1. Print first and last name clearly.
2. Circle present grade level.
3. Circle magnet.
4. Place your signature on the appropriate line.
5. Have parent/guardian place signature on appropriate line which indicates they have reviewed and approve your course choices for the upcoming school year.
6. Review the scheduling packet paying special attention to pre-requisites and required grade levels for classes.
7. Select 8 classes you would like to take for next year, selecting requirements for graduation before selecting electives.
8. Note these 8 choices with an 'X' in the 'X' column.
9. Ask current teachers in the content areas of your chosen classes to initial in the "Tchr Initials" column. Teacher initials indicate you have discussed your choice with the teacher and they have given you a recommendation for the next course level.
10. Use a highlighter to highlight the 8 courses you have chosen.
11. Choose 3 alternate classes you would also like to take in case the scheduling program is unable to satisfy the initial 8 requests.
12. Note your 3 alternate classes by writing A1, A2 and A3 in the X column beside the appropriate course.
13. Return completed "Student Course Requests sheet" to the receptionist in the Guidance Office by _____.

COMMUNICATION MEDIA ARTS

The Communications/Media Arts (CMA) Magnet is a unique, award-winning program for students interested in journalism, broadcasting, photography, graphic design, public relations, and advertising. Students sometimes pursue careers in media, education, business, politics, law, and other areas in which communication plays a vital role. This nationally award-winning four-year program allows students to take intensive journalism electives along with the traditional rigorous course content that Manual offers, including AP courses and other electives. The courses listed below indicate the courses that are required for a student to complete the CMA Academic Program.



9th Grade

_____ English	Freshman English (Honors or Advanced)
_____ Math	Algebra I, Honors Algebra 1, or Advanced Geometry
_____ Science	Integrated Science (Honors or Advanced)
_____ PE/Health	Physical Education I or Fundamentals of Dance and Health
_____ Social Studies**	Advanced Exploring Civics or Advanced Placement Human Geography
_____ - Or -	
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced - Level 1 or 2)
_____ CMA Course	Journalism I: Intro to Mass Communications (#42313111)
_____ CMA Course	Desktop Publishing (Listed as Eng Graphic Arts/#42338011)
_____ Study Skills	

10th Grade

_____ English	Sophomore English (Honors or Advanced)
_____ Math	Geometry or Algebra II (Regular, Honors, or Advanced)
_____ Science	Biology (Regular, Honors, or Advanced)
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced - Level 1, 2, or 3)
_____ Social Studies	World History (Honors, Advanced, or Advanced Placement) or AP Euro History
_____ CMA Course	Journalism 2: Intensive Journalistic Writing (#42323111)
_____ CMA Elective*	
_____ Elective or Study Skills	

11th Grade

_____ English	Junior English (Honors, Advanced, or Advanced Placement)
_____ Math	Algebra II (Regular, Honors, or Advanced) or Pre-Calculus (Honors or Advanced)
_____ Science	Chemistry (Honors or Advanced)
_____ Social Studies	US History (Honors, Advanced, Advanced Placement)
_____ CMA Elective*	
_____ CMA Elective*	
_____ Elective	Spanish, French, German, or Latin – (Honors or Advanced – Level 2, 3, or 4)
_____ Elective or Study Skills	

12th Grade

_____ English	Senior English (Honors, Advanced, or Advanced Placement)
_____ Math	College Algebra, Pre-Calculus (Honors or Advanced), or Calculus (Honors or AP)
_____ Humanities	Humanities (Regular, Advanced, Spanish) or AP Art History
_____ Social Studies	Economics (Regular or AP), Government (Regular or AP)
_____ CMA Elective*	
_____ CMA Elective*	
_____ Elective	
_____ Elective or Aide Period	

*CMA Electives include (see course descriptions for prerequisites and availability):

Broadcast 1 (produces "Manual AM" and listed as Broadcast Journalism 3 - #42331411), **Broadcast 2** (produces "Manual AM" and listed as Broadcast Journalism 4 - #42341411), **Creative Video Production** (listed as Film & Video Editing - #45803541), **Online Media** (, produces Manualredeye.com and listed as Writing Comp/Desktop Publishing - #4237111), **Newspaper** (listed as Journalism 3 - #42333111), **Oral Communication/Debate** (listed as Oral Comm/Debate - #42320711), **Photojournalism** (listed as Photojournalism - #42350511, **Yearbook** (listed as Yearbook #42320711); **Editorial Leadership** (listed as Journalism 4 - #42343111), **Web Design, Advertising (Principles of Marketing), Creative Writing, and Film Studies (English Special Topics).**

**Students may take Economics or Government during their senior year instead.

HIGH SCHOOL UNIVERSITY

The High School University (HSU) Magnet Program will provide a rigorous liberal arts centered experience which will allow students to explore various disciplines beyond the core magnet requirements. The HSU program is designed to provide a strong preparatory curriculum for academically talented students who are motivated to prepare for postsecondary education. Flexibility in the students' elective-course time provides students with the opportunity to attend U of L classes. The courses listed below indicate the courses that are required for a student to complete the High School University Academic Program. This worksheet is the basis for developing a four year plan.



9th Grade

_____ English	Freshman English (Honors or Advanced)
_____ Math	Algebra I, Honors Algebra 1, or Advanced Geometry
_____ Science	Integrated Science (Honors or Advanced)
_____ PE/Health	Physical Education I or Fundamentals of Dance and Health
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 1 or 2)
_____ Social Studies*	Advanced Exploring Civics or Advanced Placement Human Geography
_____ HSU Course	Leadership Dynamics (#45111941)
_____ Study Skills	

10th Grade

_____ English	Sophomore English (Honors or Advanced)
_____ Math	Geometry (Regular, Honors, or Advanced) or Algebra II (Regular, Honors, or Advanced)
_____ Science	Biology (Regular, Honors, or Advanced)
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 1, 2, or 3)
_____ Social Studies	World History (Honors, Advanced, or Advanced Placement) or Advanced Placement Euro History
_____ Elective	
_____ Elective	
_____ Elective or Study Skills	

11th Grade

_____ English	Junior English (Honors, Advanced, or Advanced Placement)
_____ Math	Algebra II (Regular, Honors, or Advanced) or Pre-Calculus (Honors or Advanced)
_____ Science	Chemistry (Honors or Advanced)
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 2, 3, or 4)
_____ Social Studies	US History (Honors, Advanced, or Advanced Placement)
_____ Elective	
_____ Elective	
_____ Elective or Study Skills	

12th Grade

_____ English	Senior English (Honors, Advanced, or Advanced Placement)
_____ Math	College Algebra, Pre-Calculus (Honors or Advanced), or Calculus (Honors or AP)
_____ Humanities	HSU - Humanities
_____ Elective	
_____ Elective	
_____ Elective	
_____ Elective	
_____ Elective or Aide Period	

Important Notes for All HSU Students:

1. Students will complete three credits in one language other than English. Four credits are highly recommended.
2. Students will complete 1 credit in technology fluency. This requirement may be met by the **Computer Applications** course. Students who pass the IC³ certification test prior to taking the class may substitute a more advanced course.

Notes for the Class of 2014 Students and Beyond:

3. Students will complete the ninth-grade HSU Common Course (**Leadership Dynamics**), which will include an orientation to high school and begin to develop their pursuit of a University education.
4. Students must take the required **HSU-Humanities** course their senior year.
5. All students will demonstrate that they are ready for post-secondary study by completing four courses of **Advanced Placement or dual credit**.

*Students may take Economics or Government during their senior year instead.

MATHEMATICS, SCIENCE, AND TECHNOLOGY

Mathematics, Science, and Technology (MST) follows a research-based curriculum for gifted students. The MST Program is designed to provide a rigorous curriculum that prepares students to be successful in any academic program (especially engineering, science, or math programs) at any college in the country. The biology, chemistry, and physics laboratories are computer-enhanced and contain specialized equipment that allows advanced studies in the life sciences, biotechnology, microbiology, optics, modern physics, robotics, computer programming, electronics, and computer-assisted design. MST students complete college-level research, mentored by university scientists and engineers. The courses listed below indicate the courses that are required for a student to complete the Math Science Technology Academic Program. This worksheet is the basis for developing a four year plan. Each student should complete a four year plan.



9th Grade

_____	English	Freshman English (Honors, or Advanced)
_____	Math	MST Geometry/Algebra 2 (#42720391)
_____	Science	MST Integrated Science (Physical/Earth) (#44010991)
_____	PE/Health	Physical Education I or Fundamentals of Dance and Health
_____	World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 1 or 2)
_____	Social Studies*	Advanced Exploring Civics or Advanced Placement Human Geography
_____	Technology	MST Computer Applications (#45025941)
_____	Study Skills	

10th Grade

_____	English	Sophomore English (Honors or Advanced)
_____	Math	MST Algebra II/Trigonometry (#42730391)
_____	Science	MST Chemistry (#44230991)
_____	World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 1, 2, or 3)
_____	Social Studies	World History (Honors, Advanced, or Advanced Placement) or AP European History
_____	Technology	Computer Programming (#45639911)
_____	Elective	
_____	Elective or Study Skills	

11th Grade

_____	English	Junior English (Honors, Advanced, or Advanced Placement)
_____	Math	MST Precalculus/Calculus (#42740391)
_____	Science	MST Biology (#44120991)
_____	World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 2, 3, or 4)
_____	Social Studies	US History (Honors, Advanced, or Advanced Placement)
_____	Elective	
_____	Elective	
_____	Elective or Study Skills	

12th Grade

_____	English	Senior English (Honors, Advanced, or Advanced Placement)
_____	Math (2012+)	AP Calculus (#42750461)
_____	Humanities	Humanities (Regular, Advanced, or Spanish) or AP Art History
_____	Science	MST Physics (#44340991), or AP Physics (#44350361)
_____	Elective	
_____	Elective	
_____	Elective	
_____	Elective or Aide Period	

Important Notes: AP Environmental Science (#44030061), AP Chemistry 2 (#44240291), and/or AP Biology 2 (#44130461) are electives for 11th or 12th grade. Students must take a minimum of 2 Technology courses AP Statistics is available as a math elective beginning in 10th grade. All MST students will complete a minimum of 4 years each of the MST science and math sequence. Students may take AP Biology and AP Chemistry in lieu of the MST courses if they have the appropriate background and have the approval of the AP teacher. Appropriate background includes prior completion of the formal course in biology or chemistry. Students selecting the AP option to fulfill MST science requirements in biology or chemistry must be enrolled in Independent Research if they are not taking a concurrent MST science class that has a research component.

VISUAL ARTS

Visual Arts (VA) is a unique program that provides artistically talented students with the opportunity to work in an exhibition gallery and nine professionally equipped studio areas. Facilities for design, drawing/painting, computer graphics, ceramics/sculpture, textiles, photography, drafting, and printmaking provide an excellent and diverse environment for outstanding experiences and instruction. Students experience visiting artists, teacher mentoring, and community internships.

The courses listed below indicate the selection, sequence, and specific course numbers required for a student to complete the Visual Art Academic Program. This worksheet is the basis for developing a four year plan. Each student should complete a four year plan with their parents.



9th Grade

_____ English	Freshman English (Honors or Advanced)
_____ Math	Algebra I, Honors Algebra 1, or Advanced Geometry
_____ Science	Integrated Science (Honors or Advanced)
_____ PE/Health	Physical Education I or Fundamentals of Dance and Health
_____ VA Course	Basic Design (#48112111)
_____ VA Course	Drawing/Painting I (#48112211)
_____ Social Studies*	Advanced Exploring Civics or Advanced Placement Human Geography
_____ - Or -	
_____ World Language	Spanish, French, German, or Latin – (Honors or Advanced – Level 1 or 2)
_____ Study Skills	

10th Grade

_____ English	Sophomore English (Honors or Advanced)
_____ Math	Geometry (Regular, Honors, or Advanced) or Algebra II (Regular, Honors, or Advanced)
_____ Science	Biology (Regular, Honors, or Advanced)
_____ Social Studies	World History (Honors, Advanced, Advanced Placement) or Advanced Placement Euro History
_____ VA Course	Drawing/Painting II (#48122211)
_____ VA Course	Ceramics and Sculpture (#48122411)
_____ Elective	Spanish, French, German, or Latin – (Honors or Advanced – Level 1, 2, or 3)
_____ Elective or Study Skills	

11th Grade

_____ English	Junior English (Honors, Advanced, or Advanced Placement)
_____ Math	Algebra II (Regular, Honors, or Advanced) or Pre-Calculus (Honors or Advanced)
_____ Science	Chemistry (Honors or Advanced)
_____ Social Studies	US History (Honors, Advanced, or Advanced Placement)
_____ VA Course	Studio Art 3 (Textiles/Printmaking) (#48130211)
_____ VA Course	Drawing 3 (#48132211) or AP Drawing (#48144261)
_____ Elective	Spanish, French, German, or Latin – (Honors or Advanced – Level 2, 3, or 4)
_____ Elective or Study Skills	

12th Grade

_____ English	Senior English (Honors, Advanced, or Advanced Placement)
_____ Math (2012+)	College Algebra, Pre-Calculus (Honors or Advanced), or Calculus (Honors or AP)
_____ VA Course	Painting 3 (#48132111), or AP 2-D Design (#48144361)
_____ VA Course	Textiles 2 (#48142511, Printmaking 2 (#48142111), or AP 3-D (#48144461)
_____ **VA Art Elective (Required)	
_____ Elective	
_____ Elective	
_____ Elective or Aide Period	

*Students may take Economics or Government during their senior year instead.

****Senior VA Required Elective Choices:** (see teacher for prerequisites) - Textiles 2 (#48142511), Printmaking 2 (#48142111), AP 3-D Design (#48144461), Photo 2 (#48130311), Computer Art/Graphic Design (#48132711) or AP Art History (#48050961).

NOTE: Students that have three years of the Arts have acquired a Specialization in the Visual Arts. Students that have earned this specialization may use this in lieu of taking a Humanities class their senior year.

Student Course Requests – 2012-2013

Name: _____ **Grade Level for 2012-13:** 9 10 11 12 **Magnet:** CMA HSU MST VA YPAS

Students and parents are encouraged to choose courses wisely. Course offerings are dependent upon student enrollment numbers.

I acknowledge the program sequence and courses I have selected. I acknowledge the program sequence and courses my son or daughter has selected.

Student Signature _____

Date _____

Parent/Guardian Signature _____

Date _____

X	Tchr Initial	Course Name	Course #	Typical Grade Level
		STUDY SKILLS	42300011	9-12
BUSINESS EDUCATION				
		Leadership Dynamics (HSU)	45111941	9
		Computer Applications	45015941	9-12
		Accounting & Financial Found.	45016141	10-12
		Entrepreneurship	45026941	10-12
		Business Management	45026741	10-12
		Business Technology	45016841	10-12
		Business Law	45026641	10-12
		Prin. of Marketing (Advertising)	45732241	11-12
		Bus. Education (Co-op)	45034641	12
ENGLISH				
		<i>Honors</i> English 1	42310131	9
		ADV English 1	42310191	9
		<i>HNR</i> English 2	42320131	10
		ADV English 2	42320191	10
		<i>HNR</i> English 3	42330131	11
		ADV English 3	42330191	11
		AP Eng Lang and Comp	42351161	11
		<i>HNR</i> English 4	42340131	12
		ADV English 4	42340191	12
		ADV English 4 (Dual Credit)	42340193	12
		AP Eng Lit and Comp	42352161	12
		Oral Comm./Debate	42351311	9-12
		Great Books	42343011	10-12
		Creative Writing (Dual Credit)	42310711	10-12
FAMILY AND CONSUMER SCIENCE				
		Life Skills	45111341	9-10
		Fashion & Interior Design 1	45127741	9-12
		Fashion & Interior Design 2	45137741	10-12
		Foods & Nutrition	45111541	10-12
		Culinary 1	45113341	11-12
		Special Topics in FCS	45128541	11-12
		Relationships & Parenting	45128241	11-12
HEALTH/PHYSICAL EDUCATION				
		Health Education (1/2 credit)	48910111	9
		Physical Education (1/2 credit)	48810011	
		Fundamentals of Dance I	48418011	9-10
		Strength and Conditioning	48840011	10-12
		Physical Education 2	48820011	11-12
		Physical Fitness	48830011	11-12
HUMANITIES				
		History Arts (HAVPA)	48020011	10-12

		ADV History Arts	48040091	12
		AP Art History	48050961	12
		ADV Human. in Spanish	42470181	12
MATHEMATICS				
		Algebra I	42710211	9
		Honors Algebra I	42710231	9
		ADV Geometry	42720291	9
		Geometry	42720211	10
		HNR Geometry	42720231	10
		ADV Algebra 2	42730291	10
		Algebra 2	42730211	11
		HNR Algebra 2	42730231	11
		ADV Pre-calculus	42740291	11
		ADV Pre-calculus (Dual Credit)	42740293	11
		HNR College Algebra	42740011	12
		HNR Pre-calculus	42740231	12
		HNR Calculus	42750231	12
		AP Calculus AB	42750361	12
		AP Calculus BC	42750461	12
		AP Statistics	42750161	10-12
SCIENCE				
		HNR Integrated Science	44010031	9
		ADV Integrated Science	44010091	9
		Biology 1	44120111	10
		HNR Biology 1	44120131	10
		ADV Biology 1	44120191	10
		AP Environmental Science	44030061	11-12
		HNR Chemistry 1	44230331	11
		ADV Chemistry 1	44230391	11
		AP Biology 2	44130461	11-12
		HNR Anatomy & Phys.	44140031	11-12
		ADV Anatomy & Phys.	44140091	12
		HNR Chemistry 2	44240131	11-12
		ADV Chemistry 2	44240191	11-12
		AP Chemistry 2	44240161	11-12
		HNR Physics 1	44340431	11-12
		ADV Physics 1	44340491	11-12
		AP Physics B	44350361	12
		Biology Special Topics	44140791	11-12
HNR – honors level				
ADV – advanced level				
AP – advanced placement level				

NAME:		Grade:	Magnet:	
X	Tchr Initials	Course Name	Course #	Typical Grade
YOUTH PERFORMING ARTS SCHOOL (YPAS)				
DANCE				
		Ballet 1	48417011	9
		Ballet 2	48427011	10
		Ballet 3	48437011	11
		Ballet 4	48447011	12
		Modern Jazz 1	48417111	9
		Modern Jazz 2	48427111	10
		Modern Jazz 3	48437111	11
		Modern Jazz 4	48447111	12
		Fundamentals of Dance	48418011	9-12
		Fund. of Dance (MT Majors)	48418013	9-12
		ADV Dance Techniques	48439011	9-12
		ADV Dance Techn. (MT Majors)	48439013	9-12
		Body Conditioning Perf Arts	48429211	9-12
		Dance Ensemble 1	48428011	10
		Dance Ensemble 2	48438011	11
		Dance Ensemble 3	48448011	12
		Dance/Tap 1	48429111	9-10
		Dance/Tap 2	48439111	10-12
		Dance/Tap 3	48449111	11-12
MUSIC				
		Chamber Ensemble 1	48310211	9
		Chamber Ensemble 2	48320211	10
		Chamber Ensemble 3	48330211	11
		Chamber Ensemble 4	48340211	12
		Percussion Ensemble 1	48310311	9
		Percussion Ensemble 2	48320311	10
		Percussion Ensemble 3	48330311	11
		Percussion Ensemble 4	48340311	12
		Symphonic Band 1	48310411	9
		Symphonic Band 2	48320411	10
		Symphonic Band 3	48330411	11
		Symphonic Band 4	48340411	12
		Wind Ensemble 1	48310511	9
		Wind Ensemble 2	48320511	10
		Wind Ensemble 3	48330511	11
		Wind Ensemble 4	48340511	12
		Jazz Improvisation 1	48310711	9
		Jazz Improvisation 2	48320711	10
		Jazz Improvisation 3	48330711	11
		Jazz Improvisation 4	48340711	12
		Marching Band 1	48310811	9
		Marching Band 2	48320811	10
		Marching Band 3	48330811	11
		Marching Band 4	48340811	12
		Philharmonia Prep 1 (Stg. Tech.)	48311111	9
		Philharmonia Prep 2 (Stg. Tech)	48321111	10
		Philharmonia Prep 3 (Stg. Tech)	48331111	11
		Philharmonia Prep 4 (Stg. Tech)	48341111	12
		Philharmonia Sec 1 (Cham. Choir)	48311311	9
		Philharmonia Sec 2 (Cham. Choir)	48321311	10
		Philharmonia Sec 3 (Cham. Choir)	48331311	11
		Philharmonia Sec 4 (Cham. Choir)	48341311	12
		Philharmonia Orchestra 1	48311411	9
		Philharmonia Orchestra 2	48321411	10
		Philharmonia Orchestra 3	48331411	11
		Philharmonia Orchestra 4	48341411	12
		Orch Strings 1 ADV	48313311	9
		Orch Strings 2 ADV	48323311	10

	Orch Strings 3 ADV	48333311	11
	Orch Strings 4 ADV	48343311	12
	Conducting	48311711	11-12
	Vocal Development 1	48312111	9
	Vocal Development 2	48322111	10
	Vocal Development 3	48332111	11
	Vocal Development 4	48342111	12
	Vocal Development (MT Majors)	48312113	9-12
	Ladies Ensemble 1	48312211	9
	Ladies Ensemble 2	48322211	10
	Ladies Ensemble 3	48332211	11
	Ladies Ensemble 4	48342211	12
	Gentlemen's Ensemble 1	48312311	9
	Gentlemen's Ensemble 2	48322311	10
	Gentlemen's Ensemble 3	48332311	11
	Gentlemen's Ensemble 4	48342311	12
	Chamber Choir 1	48312411	9
	Chamber Choir 2	48322411	10
	Chamber Choir 3	48332411	11
	Chamber Choir 4	48342411	12
	Concert Choir 1	48312511	9
	Concert Choir 2	48322511	10
	Concert Choir 3	48332511	11
	Concert Choir 4	48342511	12
	Guitar 1	48329011	9-12
	Guitar 2	48339011	10-12
	Guitar 3	48349011	11-12
	Piano Keyboard 1	48316111	9-12
	Intermediate Piano	48315611	9-12
	Applied Piano 1	48316211	9
	Applied Piano 2	48326211	10
	Applied Piano 3	48336211	11
	Applied Piano 4	48346211	12
	Music Theory 1	48347111	10-12
	AP Music Theory	48357161	11-12
Theater/Design & Production			
	Exploring Theater	48512211	9-12
	Exploring Theater (MT Majors)	48512213	9-12
	Theater 1	48510211	9
	Theater 2	48520211	10
	Theater 3	48530211	11
	Theater 4	48540211	12
	Stage Production 2 (Directing)	48522511	10
	Stage Production 3 (Directing)	48532511	11
	Stage Production 4 (Adv. Perf.)	48542511	12
	Playwriting 1	48521211	10-12
	Playwriting 2	48531211	11-12
	Playwriting 3	48541211	12
	Music Theater Lab 2	48521511	10
	Music Theater Lab 3	48531511	11
	Music Theater Lab 4	48541511	12
	American Music Theater 2*	48521011	10
	American Music Theater 3*	48531011	11
	American Music Theater 4*	48541011	12
	Design Production 1*	48510311	9
	Design Production 2*	48520311	10
	Design Production 3*	48530311	11
	Design Production 4*	48540311	12
	Stagecraft 1 **	48510511	9
	Stagecraft 2**	48520511	10
	Stagecraft 3**	48530511	11
	Stagecraft 4**	48540511	12
*Courses are double blocked. ** Courses meet after school. MT = Musical Theatre Majors			

YPAS COURSES OPEN TO MANUAL STUDENTS (NON-MAJOR)

DANCE

Fundamentals of Dance I (48418911)

No prerequisite – one year of FOD fulfills the requirements for physical education graduation requirement.

Total Body Conditioning/Fundamentals of Dance II (48429211)

No prerequisite

Advanced Dance Techniques (48439011)

Prerequisite – FOD I or FOD II, teacher approval, audition

Beginning Tap Dance I (48429111)

Prerequisite: - None (student must supply their own dance clothes and tap shoes)

Intermediate Tap Dance II (48439111)

Prerequisite – Tap Dance I or teacher approval (student must supply their own dance clothes and tap shoes)

Advanced Tap Dance III (48449111)

Prerequisite – Tap Dance I, Tap Dance II, or teacher approval (student must supply their own dance clothes and tap shoes)

INSTRUMENTAL MUSIC - BAND

Intermediate Band Skills Development (48310111)

Prerequisite – Audition

Percussion Ensemble I, II, III, IV (48310311, etc.)

Prerequisite – Audition

Chamber Ensemble I, II, III, IV (48310211, etc.)

Prerequisite – Audition

Symphonic Band I, II, III, IV (48310411, etc.)

Prerequisite – Audition

Wind Ensemble I, II, III, IV (48310511, etc.)

Prerequisite – Audition

Jazz Improvisation I, II, III, IV (48320711, etc.)

Prerequisite – Teacher Approval

Jazz Ensemble I, II, III, IV (48310611, etc.)

Prerequisite – Audition

Marching Band/Pep Band I, II, III, IV (48310811, etc.)

Class meets after school during fall semester – receives .5 credits

Prerequisite: Teacher Approval

INSTRUMENTAL MUSIC - ORCHESTRA

String Techniques I, II, III, IV (48311111, etc.)

Prerequisite – Audition

YPAS Philharmonia Orchestra I, II, III, IV (48311411, etc.)

Prerequisite – Audition

YPAS Chamber String Orchestra I, II, III, IV (48311311, etc.)

Prerequisite – Audition

Manual Concert Orchestra I, II, III, IV (48313311, etc.)

Prerequisite – Audition

INSTRUMENTAL MUSIC - PIANO

Piano Keyboard I (48314011)

Class is limited to 14 students – preference given to YPAS non-piano college music majors. Prerequisite – None

Intermediate Piano I, II, III, IV (48315611, etc.)

Class is limited to 18 students – preference given to YPAS non-piano college music majors. Prerequisite – Audition

Applied Piano I, II, III, IV (48316211, etc.)

Prerequisite – Audition

MUSICAL THEATRE

Musical Theater Laboratory II, III, IV (48521511, etc.)

Prerequisite – Audition: some training in either dance, vocal or instrumental music, and/or acting are encouraged.

American Musical Theater II, III, IV (48521011, etc.)

Prerequisite – Audition or the preparatory Musical Theater Laboratory

THEATRE

Exploring Theater (48512211)

Prerequisite – None

Fundamentals of Directing/Stage Production II, III, IV (48522511, etc.)

Prerequisite – Teacher Approval

Playwriting I, II, III (48521211, etc.)

Prerequisite – Teacher Approval

VOCAL MUSIC

Vocal Development (48312111)

Prerequisite – Audition

Ladies Ensemble I, II, III, IV (48312311, etc.)

Prerequisite – Audition

Gentlemen's Ensemble I, II, III, IV (48312311, etc.)

Prerequisite – Audition

Chamber Choir I, II, III, IV (48312411, etc.)

Prerequisite – Audition

Concert Choir I, II, III, IV (48322511, etc.)

Prerequisite – Audition

MUSIC THEORY

Music Theory I (48347111)

Prerequisite – None – class is limited to 14 students

AP Music Theory II (48357161)

Prerequisite – Music Theory I or Teacher Approval if you demonstrate equivalent skills.



BRIEF COURSE DESCRIPTIONS

(Full course description are found on the school's website: www.dupontmanual.com, click on Counselors, and then Scheduling.)

BUSINESS EDUCATION

Leadership Dynamics (45111941)

Prerequisite(s): none

This course is designed to assist students with developing skills needed to be successful leaders, responsible members of school, community, and society, and to aid in the successful transitioning to high school. This course is required for all freshman HSU students.

Computer Applications (45015941)

Prerequisite(s): none

Students will use computers and application software including: Microsoft Office (WORD), presentation software (POWERPOINT), database (ACCESS), spreadsheets (EXCEL), Internet, and e-mail to prepare business documents and reports.

Accounting and Financial Foundations (45016141)

Prerequisite(s): none

This course will provide an introduction to both areas of accounting and finance. Topics will include banking, credit, financial literacy, career exploration and spreadsheet usage.

Entrepreneurship (45026941)

Prerequisite(s): None

This course provides students the opportunity to explore the rewards and risks of business ownership. Emphasis is given to the characteristics of successful entrepreneurs: planning, organizing, and beginning a business; financing and managing the enterprise; franchising opportunities; and sources of financing.

Business Management (45026741)

Prerequisite(s): none

Business Management is designed to provide the student with a working knowledge of the essential principles and concepts of management theory and practice.

Business Technology (45016841)

Prerequisite(s): Computer Applications

This course is designed to be a hands-on exploration of business technologies in the following areas: accounting, finance and credit, business management, marketing, economics, and computer applications. This course is a requirement to complete a Career and Technical Education four-course certificate in Business Technology from the state of Kentucky.

Principles of Marketing (45732241) (formerly the Advertising/Promo course)

Prerequisite(s): None

Students will examine common marketing practices in popular businesses, and develop marketing strategies of their own, and analyze the effectiveness of marketing strategies in various environments.

Business Cooperative Education (Co-op) (45034641)

Prerequisite(s): Application & interview

Business Cooperative Education (Co-op) focuses on a cooperative work experience for 12th grade students. Students attend school ½ days and are then released ½ day to report to their co-op jobsite. Students must have two business courses.

Business Law (45026641)

Prerequisite(s): none

This course develops an understanding of legal right and responsibilities in personal and business law with applications applied to everyday roles as consumers and citizens.

Advanced Program Freshman English (42310191)

Prerequisite(s): Strong Performance in Middle School English. ADV Freshman English blends the strands of reading, writing, speaking, listening, observing, and using technology as a communication tool.

Honors Sophomore English (42320131)

Prerequisite(s): Freshmen English.

HNR Sophomore English is a literature and composition course that seeks to enhance the student's understanding, effective use, and enjoyment of language.

Advanced Program Sophomore English (42320191)

Prerequisite(s): Strong performance in Freshman English. ADV Sophomore English continues to build the reading, writing, speaking, listening, observing, and using of technology that was started during the freshman year.

Honors Junior English (42330131)

Prerequisite(s): 9th & 10th grade English

HNR Junior English continues to help students progress in their mastery of the mechanics of the English language as well as to help students develop an appreciation for various types of literature. During the junior year, American literature is emphasized.

Advanced Program Junior English (42330191)

Prerequisite(s): Junior standing

ADV Junior English is designed to prepare students for both the collegiate level of analytical and research reading/writing as well as to relate writing topics for real world application.

Advanced Placement English Language and Composition (42351161)

Prerequisite(s): Junior standing and instructor recommendation. AP English Language and Composition corresponds to the college composition course; therefore, it is an advanced writing course that includes the study of rhetoric and argument. Note: College level curriculum taught in a high school setting.

Honors Senior English (2340131)

Prerequisite(s): Freshmen, Sophomore, and Junior English. HNR Senior English

continues to help students progress in their mastery of the mechanics of the English language as well as to help students develop an appreciation for various types of literature. During the senior year, English literature is emphasized.

Advanced Program Senior English (42340191)

Prerequisite: Senior standing

ADV Senior English is a literature and composition course that seeks to enhance the student's understanding, effective use, and enjoyment of language.

Advanced Senior English (42340193 – Dual Credit with UofL)

Prerequisite(s): Senior standing, instructor approval. ADV Senior English follows the same content and format as *Advanced Program Senior English*, but, in addition, qualified (dependent on ACT score and grade point average set by the University of Louisville) students have the opportunity to pay tuition and receive college credit for English.

Advanced Placement English Literature and Composition (42352161)

Prerequisite(s): Senior standing and instructor recommendation.

AP English Literature is a college-level English class that focuses on preparing students for the opportunity to earn college credit by taking the Advanced Placement Examination in English Literature and Composition, sponsored by the College Board.

ENGLISH

Honors Freshman English (42310131)

Prerequisite(s): None

HNR Freshman English blends the strands of reading, writing, speaking, listening, and observing as communication tools.

Great Books (42343011)

Prerequisite(s): None

Great Books explores a wide variety of genres and subjects students choose. Class discusses these ideas through the Shared Inquiry method. Note: Elective course.

Creative Writing (42310711)**Prerequisite(s): Freshman English**

Creative Writing is designed for both the skilled and determined beginning writer as we explore the realm of writing for the aesthetic purpose of creating pieces of fiction, flash fiction, monologues, plays, and poetry in many forms. Note: Must meet ACT requirement for University of Louisville for Dual Credit

FAMILY & CONSUMER SCIENCE

Life Skills (Comprehensive Home Economics) (45111341)**Prerequisite(s): none**

Life Skills introduces students to Family and Consumer Sciences through short units of instruction.

Fashion Design 1 (45127741)**Prerequisite(s): None**

Fashion Design I provides opportunities for students to develop career competencies in the fashion and/or interiors industry by applying information related to social, economic, and media influences.

Fashion Design 2 (45137741)**Prerequisite(s): Fashion Design I**

Fashion Design II provides opportunities for students to develop career competencies in the fashion and/or interiors industry.

Foods & Nutrition (45111541)

Prerequisite(s): None This course is designed to assist students in making critical decisions about food. Laboratory instruction is included.

Culinary (45113341)**Prerequisite(s): Life Skills or Interview with Teacher**

This course builds on the skills learned in Foods and Nutrition. This advanced course allows students to increase competencies in a variety of food preparation techniques.

Special Topics in Family and Consumer Science**Prerequisite(s): Approval from Teacher**

Special Topics in FCS - Fashion Merchandising is a specialized course that provides instruction in marketing of apparel and accessories.

Relationships & Parenting (45128241)**Prerequisite(s): None**

Relationships & Parenting is designed to aid students in developing parenting and care giving skills that can be applied in a variety of situations. NOTE: Recommended for upperclassman due to the content discussed.

HEALTH & PHYSICAL EDUCATION

Health Education I (48910111)**Prerequisite(s): None**

Health Education I consists of instruction in the following health areas: personal wellness, behavior choices, communicable and non-communicable diseases, mental and emotional health, self management and coping strategies, nutrition, safety and first aid. Note: Graduation requirement

Physical Education I (48810011)**Prerequisite(s): None**

Physical Education I involves the teaching of lifetime leisure sports, individual sports, and team sports.

Note: Graduation requirement

Fundamentals of Dance I (48418911)

Prerequisite(s): None. Fundamentals of Dance I instruct students in basic dance movement skills to increase body awareness, enhance self-image, improve physical fitness, and develop personal expression potential. Note: Open to all Manual/YPAS students. Fulfills required physical education credit

Strength and Conditioning (48840011)**Prerequisite(s): Department chair approval**

Students will design individual workout plans, chart progress, test max levels, and revise and modify accordingly throughout the year.

Physical Education 2 (48820011)**Prerequisite(s): Department chair approval**

Physical Education II is designed for students who desire to develop advanced skills in selected games and sports, including physical fitness.

Physical Fitness (48830011)**Prerequisite(s): Department chair approval**

The class includes student self-evaluation and individualized programs in strength, muscular endurance, cardiovascular, flexibility, and freedom from obesity.

HUMANITIES

History and Appreciation of Visual and Performing Arts (48020011)**Prerequisite(s): None**

History and Appreciation of Visual and Performing Arts include the disciplines of visual art, music, dance, drama and literature.

Advanced Program History and Appreciation of Visual and Performing Arts (48040091)**Prerequisite(s): None**

ADV History and Appreciation of Visual and Performing Arts are an interdisciplinary course surveying the development of human culture from the ancient world to the present. Note: This course will satisfy the Advanced Program Humanities requirement.

Advanced Placement Art History (48050961)**Prerequisite(s): None**

AP Art History is designed to allow students to examine major forms of artistic expression from the past to the present in a variety of cultures. Note: College level curriculum taught in a high school setting. This course will satisfy the *Advanced Program* Humanities requirement.

Advanced Program Humanities in Spanish (42470181)**Prerequisite(s): Successful completion of Spanish 1-3**

ADV Humanities in Spanish is a course presenting the core content of the *Advanced Program* Humanities course, but contextualized and taught in the target language of Spanish. Note: This course will satisfy the *Advanced Program* Humanities requirement.

MATHEMATICS

(For MST Courses See MST Section)

Algebra 1 (42710211)**Prerequisite(s): None**

Algebra 1 includes the study of matrices, linear equations, linear inequalities, linear functions, polynomials, and quadratic functions. Successful completion of this sequence prepares students for Geometry.

Honors Algebra 1 (42710231)**Prerequisite(s): None**

HNR Algebra 1 includes the study of matrices, linear equations, linear inequalities, linear functions, systems of equations and inequalities, probability, polynomials, quadratic functions, and other functions including piecewise and absolute value.

Geometry (42720211)**Prerequisite(s): Algebra I**

Geometry includes the study of triangles, polygons, transformations, similarity, right triangle trigonometry, surface area, and volume. Successful completion of this course prepares a student for further work in Algebra II.

Honors Geometry (42720231)**Prerequisite(s): Honors Algebra I**

HNR Geometry includes the study of line and angle relationships, polygons, triangles, transformations, circles, areas, volume, Pythagorean Theorem, similarity and right triangle trigonometry. Successful completion of this course prepares a student for further work in algebra, usually Honors Algebra II.

Advanced Program Geometry (42720291)**Prerequisite(s): Advanced or Honors Algebra**

ADV Geometry includes the study of line and angle relationships, polygons, triangles, logic, proof, transformations, circles, areas, volume, Pythagorean Theorem, similarity and right triangle trigonometry. Additionally several algebra topics are addressed: solving multi-step one-variable equations, systems of equations, and quadratic equations.

Algebra 2 (42730211)**Prerequisite(s): Algebra I and Geometry**

Algebra 2 includes the study of functions including piecewise and absolute value, systems, exponential functions, sequences and series, probability, and statistics.

Honors Algebra 2 (42730231)**Prerequisite(s): Honors Algebra I and Honors Geometry**

HNR Algebra 2 provides a rigorous preparation for Honors Pre-Calculus. This course includes the study of probability, systems of equation and inequalities, polynomial expressions and operations, exponential and logarithmic functions, quadratics, data analysis, sequences and series, radical and rational expressions.

Advanced Program Algebra 2 (42730291)

Prerequisite(s): Advanced Algebra I and Advanced Geometry. ADV Algebra 2 includes the study of probability, systems of equations and inequalities, polynomial expressions and operations, exponential and logarithmic functions, quadratics, data analysis, sequences (explicit and recursive rules) and series, radical expressions and equations, rational expressions and equations, and trigonometric functions.

Honors College Algebra (42740031)**Prerequisite(s): Honors Algebra II**

HNR College Algebra includes a review of linear equations and linear functions and an in-depth study of polynomial expressions/functions, quadratic equations/functions, rational expressions/functions, radical expressions, equations, and functions with radicals, exponential and logarithmic equations and functions, conics, matrices, introduction to linear programming, and non-linear systems.

Honors Pre-Calculus (42740231)**Prerequisite(s): Algebra I, Geometry, and Algebra II**

HNR Pre-calculus includes the study of functions, polynomial functions, rational equations and functions, radical equations and functions, exponential equations and functions, logarithmic equations and functions trigonometric functions, polar coordinates, vectors, and conics.

Advanced Program Pre-calculus (42740291)**Prerequisite(s): Algebra I, Geometry, and Algebra II**

ADV Pre-calculus includes the study of functions, polynomial functions, rational functions, radical functions, exponential equations and functions, logarithmic equations and functions, trigonometric functions, polar coordinates, vectors, and conics.

Honors Calculus (42750231)**Prerequisite(s): Algebra I, Geometry, Algebra II**

HNR Calculus includes the study of limit and continuity concepts, derivative as a slope and as a rate of change, applications of derivatives, integrals, and applications of integrals.

Advanced Placement AB Calculus (42750361)**Prerequisite(s): Successful completion of Advanced Program Pre-Calculus or MST Precalculus/Calculus**

This course includes a study of functions, graphs, limits, derivatives as points and functions, second derivatives, and applications of derivatives, integrals, and applications of integrals, Fundamental Theorem of Calculus, techniques and applications of antidifferentiation. Note: College level curriculum taught in a high school setting and follows the College Board curriculum.

Advanced Placement Calculus B/C (42750461)**Prerequisite(s): MST Algebra II, MST Geometry/Trigonometry, and MST Pre-Calculus/Calculus**

This course follows the College Board curriculum. Note: College level curriculum taught in a high school setting

Advanced Placement Statistics (42750161)**Prerequisite(s): Honors Algebra II, Advanced Program Algebra II, or MST Geometry/College Algebra**

AP Statistics follows the College Board curriculum. This course includes graphical representations of data, measures of central tendency and variability, probability and probability distribution, normal distribution, inference for distributions, proportions, tables, and regressions. Note: College level curriculum taught in a high school setting.

SCIENCE

(For MST Courses See MST Section)

Honors Integrated Science (44010031)**Prerequisite(s): None**

HNR Integrated Science is an inquiry based interdisciplinary course that emphasizes topics in conceptual physical and earth science within a laboratory setting.

Advanced Program Integrated Science (44010091)**Prerequisite(s): None**

ADV Integrated Science is an inquiry based interdisciplinary course that emphasizes topics in conceptual physical and earth science within a laboratory setting. In addition, each student is given the opportunity to learn from detailed laboratory exercises, special projects, and research. Science, technology, and societal issues are integrated throughout the course.

Biology I (44120111)**Prerequisite(s): None**

Biology I is a course which offers a basic understanding of life and life processes. Required topics of study include: the cell, the molecular basis of heredity, biological change, the interdependence of organisms, behavior of organisms, and energy and organization in a living system.

Honors Biology I (44120131)**Prerequisite(s): None**

HNR Biology I uses the same content as Biology I, but enriches and extends the curriculum by adding more complicated laboratory exercises, extensive reading and writing assignments, community involvement and independent student homework assignments.

Advanced Program Biology I (44120191)**Prerequisite(s): None**

AP Biology I uses the same content as Biology I, but enriches and extends the curriculum by adding more complicated laboratory exercises, extensive reading and writing assignments, community involvement and independent student homework assignments. In addition, research and special projects are incorporated. Science, technology, and societal issues are integrated throughout the course.

Advanced Placement Environmental Science (44030061)**Prerequisite(s): Integrated Science (or Chemistry), Biology**

This course follows the College Board curriculum and is designed to provide students with the scientific principles, concepts, and methodologies required to understand the cycles in nature, interrelationships of the natural world, and to identify and analyze environmental problems. Note: College level curriculum taught in a high school setting

Honors Chemistry I (44230331)**Prerequisite(s): None**

HNR Chemistry I includes the study of atomic structure and theory, the chemical properties of matter, chemical reactions, and energy changes.

Advanced Program Chemistry I (44230391)**Prerequisite(s): None**

ADV Chemistry I includes the study of atomic structure and theory, the chemical properties of matter, chemical reactions, and energy changes.

Advanced Placement Biology (44130461)**Prerequisite(s): Successful completion of Biology 1**

AP Biology follows the College Board curriculum and covers topics regularly covered in a college biology course for majors. Note: College level curriculum taught in a high school setting.

Honors Anatomy and Physiology (44140031)**Prerequisite(s): None**

HNR Anatomy and Physiology is an in-depth study of the human body's nine major systems' structural and functional components using inquiry-based laboratory experiences and activities, such as dissections of comparative organs. Note: Elective Course

Advanced Program Anatomy and Physiology (44140091)**Prerequisite(s): None**

This course is an extensive study of the human body's nine major systems' structural and functional components using inquiry based laboratory experiences and activities such as dissections of comparative organs.

Honors Chemistry 2 (44240131)**Prerequisite(s): Successful completion of Chemistry 1**

HNR Chemistry II is an in-depth study of organic chemistry, thermodynamics, kinetics, equilibrium, and other selected topics using inquiry-based laboratory techniques and scientific practices.

Advanced Program Chemistry 2 (44240191)**Prerequisite(s): Successful completion of Chemistry 1**

ADV Chemistry II is an extensive study of organic chemistry, thermodynamics, kinetics, equilibrium, and other selected topics using inquiry-based laboratory techniques and scientific practices.

Advanced Placement Chemistry (44240161)**Prerequisite(s): Successful completion of Chemistry 1**

AP Chemistry follows the College Board curriculum and covers material that would normally be covered in a college introductory chemistry course.

Note: College level curriculum taught in a high school setting

Honors Physics I (44340431)**Prerequisite(s): None**

HNR Physics I includes the study of the laws of motion and forces, the laws of conservation of energy, and the interactions of energy with matter.

Advanced Program Physics I (44340491)**Prerequisite(s): None**

ADV Physics I includes the study of the laws of motion and forces, the laws of conservation of energy, and the interactions of energy with matter.

Advanced Placement Physics B (44350361)**Prerequisite(s): Advanced Pre-Calculus/Calculus**

AP Physics B provides detailed descriptions of kinematics, dynamics, rotational motion, gravity, oscillations, waves, optics, thermal physics, electrical forces, electrical potential, DC circuits, magnetic forces, atomic physics and nuclear physics. Note: College level curriculum taught in a high school setting

Special Topics in Science: Bioethics (43640121)**Prerequisite(s): Chemistry I and Biology I**

Special Topics in Science: Bioethics introduces foundational concepts of moral and ethical theory and will present a survey of core issues and cases that have defined the field of bioethics. Note: This is an upper level elective course, which will require a commensurate amount of reading, writing, and class participation.

SOCIAL STUDIES**Advanced Program Exploring Civics (42210091)****Prerequisite(s): None**

This course is designed to allow students to define their role in society.

Advanced Placement Human Geography (42241361)**Prerequisite(s): None**

This course prepares the student to use and think about maps and spatial data sets, understand and interpret the implications of associations among phenomena in places, recognize and interpret relationships among patterns and processes, define regions and examine how regions come into being, and characterize and analyze changing interconnections among places. Note: This course may also be taken any year, but is primarily offered for freshmen.

Honors World Civilizations (42220131)**Prerequisite(s): None**

This course is a survey course, which focuses primarily on the historical and cultural development of major civilizations since 1500.

Advanced Program World Civilizations (42220191)**Prerequisite(s): None**

This is a survey course, which focuses primarily on the historical and cultural development of major civilizations since 1500. Note: An in depth research project is part of the course.

Advanced Placement World History (42220261)**Prerequisite(s): Instructor recommendation.**

This course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, form a foundation for modern history, and focuses primarily on human history from 1000 A.D. to the present. Note: College level curriculum taught in a high school setting

Advanced Placement European History (42241261)**Prerequisite(s): Instructor recommendation.**

This study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the modern world. Note: College level curriculum taught in a high school setting. Course may be taken as an elective during 11th or 12th.

Honors Program United States History (42230031)**Prerequisite(s): None**

This course completes the study of U.S. history that was introduced in the eighth-grade U.S. history class and focuses on the development of the United States since 1865.

Advanced Program United States History (42230091)**Prerequisite(s): None**

This is a survey course the closely examines the political, economic, and social conditions of each era. While the whole of United States history is covered, particular attention is given to the period from 1865 to the present.

Advanced Placement United States History (42230061)**Prerequisite(s): Instructor recommendation.**

This course is designed to allow students to examine United States history from the first European explorations of the Americas to the present. Note: College level curriculum taught in a high school setting

**Advanced Placement Comparative Government and Politics/
Advanced Placement U.S. Government and Politics (42230461)**

Prerequisite(s): Instructor recommendation.

This course follows the College Board curriculum. In the first semester the course includes an in-depth study of U.S. Government and Politics. Note: College level curriculum taught in a high school setting. Students will prepare for the AP U.S. Government and Politics Exam during one semester and AP Comparative Government and Politics Exam the other semester.

Advanced Placement U.S. Government and Politics (42231461)

Prerequisite(s): Instructor recommendation.

This course gives the student an analytical perspective on government and politics in the United States. Note: College level curriculum taught in a high school setting.

Government and Politics (42240311)

Prerequisite(s): None

This course introduces the student to both theoretical political science and to practical politics. Emphasis is placed on the skills and concepts used by the political scientist and on the processes involved in practicing political decision-making.

Introduction to Psychology (42240211)

Prerequisite(s): None

This course is a scientific study of behavior. It introduces selected topics of psychological study and the skills and methods of psychological experimentation.

Note: Elective course.

Advanced Placement Psychology (42240261)

Prerequisite(s): Instructor recommendation.

This course is designed to introduce students to the systematic scientific study of the behavior of mental processes of human beings and animals. Note: College level curriculum taught in a high school setting

Economics (42240511)

Prerequisite(s): None

This course introduces students to decision-making based on economic principles. In addition to personal finance concepts, key topics include supply and demand, banking, small businesses/entrepreneurship, and the role of the government in the economy.

Advanced Placement Macroeconomics (42242761)

Prerequisite(s): Instructor recommendation.

This course is designed to give the student a thorough understanding of the principles of economics that apply to an economic system as a whole. Note: College level curriculum taught in a high school setting

Advanced Placement Microeconomics (42242661)

Prerequisite(s): Instructor recommendation.

This course is designed to give the student a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. Note: College level curriculum taught in a high school setting

The Holocaust (42240811)

Prerequisite(s): None.

This is a course designed to study this particular event in history in detail and substance, and to research and compare similar events of the past in which inhumane treatment of groups of people has occurred.

Law Justice (42210111)

Prerequisite(s): None

This course focuses on those legal documents and institutions that are fundamental to understanding democratic principles and the political structure of the United States, and examines criminal and civil law.

African American History (42241411)

Prerequisite(s): None

African American History focuses on an in-depth study of Africans and African Americans, including their history, culture, contributions, and current status in the United States. Emphasis is placed upon the geographic origins of African people and the economic and political forces that brought them to America.

WORLD LANGUAGES

Honors French 1 (42406131)

Prerequisite(s): None

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Advanced Program French 1(42406191)

Prerequisite(s): None

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Honors French 2 (42406231)

Prerequisite(s): French I or demonstrated mastery

The course offers students opportunities to improve in the three modes of communication and increase their knowledge and understanding of the relationship of cultural products, practices, and perspectives of the French-speaking world.

Advanced Program French 2 (42406291)

Prerequisite(s): Advanced Program French I or demonstrated mastery

The course is a follow up on the grammar taught in the previous years, with an attention given to the two major past tenses of the indicative (passé-composé and imparfait), the study of the "SI" clauses and an introduction to the subjunctive mood.

Honors French 3 (42406331)

Prerequisite(s): French I and French II

Students will expand cultural knowledge and learn to interpret the varied products of French-speaking civilizations, such as music, films, newspapers, literary texts, architecture, and inventions, in terms of underlying cultural values and attitudes.

Advanced Program French 3 (42406391)

Prerequisite(s): Advanced Program French I and French II

The course is a follow up on the grammar taught in the previous years, with an attention given to the two major past tenses of the indicative (passé-composé and imparfait), the study of the "SI" clauses and an introduction to the subjunctive mood.

Honors French 4 /Honors Conversational French (42406431)

Prerequisite(s): French I, French II, and French III

Students will explore the interrelationship of ideas and values in order to explain "why" and to anticipate "how" particular cultures will respond to events, problems, and questions.

Advanced Program French 4 (42406491)

Prerequisite(s): Successful completion of Advanced Program French I, French II, and French III.

This course builds advanced conversational skills through a variety of language strategies with emphasis on conveying meaning and performing tasks. Assessment is through vocabulary tests and situational simulations.

Advanced Placement French Language (42406661)

Prerequisite(s): Successful completion of prior Advanced Program French courses (French I-IV)

AP French Language prepares the students for the AP test in May. It is an intensive course which develops the four skills: writing, reading, listening, and speaking. The culture is incorporated in the reading passages.

Honors German 1 (42407131)

Prerequisite(s): None

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Advanced Program German 1 (42407191)**Prerequisite(s): None**

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Honors German 2 (42407231)**Prerequisite(s): German 1**

The course offers students opportunities to improve in the three modes of communication and increase their knowledge and understanding of the relationship of cultural products, practices, and perspectives of the German-speaking world.

Advanced Program German 2 (42407291)**Prerequisite(s): Advanced German 1**

The course offers students opportunities to improve in the three modes of communication and increase their knowledge and understanding of the relationship of cultural products, practices, and perspectives of the German-speaking world.

Honors German 3 (42407331)**Prerequisite(s): German 1 and 2**

Students will expand cultural knowledge and learn to interpret the varied products of German-speaking civilizations, such as music, films, newspapers, literary texts, architecture, and inventions, in terms of underlying cultural values and attitudes.

Advanced Program German 3 (42407391)**Prerequisite(s): Advanced German 1 and 2**

Students will expand cultural knowledge and learn to interpret the varied products of German-speaking civilizations, such as music, films, newspapers, literary texts, architecture, and inventions, in terms of underlying cultural values and attitudes.

Honors German 4 (42407431)**Prerequisite(s): German 1, 2, and 3**

Students will explore the interrelationship of ideas and values in order to explain "why" and to anticipate "how" particular cultures will respond to events, problems, and questions.

Advanced Program German 4 (42407491)**Prerequisite(s): Advanced German 1, 2, and 3**

Students will explore the interrelationship of ideas and values in order to explain "why" and to anticipate "how" particular cultures will respond to events, problems, and questions.

Honors Latin 1 (42412111)**Prerequisite(s): None**

The student learns basic forms and syntax of the Latin language in a cumulative fashion. The student learns to discern English derivatives of assigned vocabularies, thereby increasing the student's English vocabulary.

Advanced Program Latin 1 (42412191)**Prerequisite(s): None**

This course provides the opportunities for the student to learn to read and write fundamental Latin, to master approximately 400-500 Latin vocabulary words presented in the text, to learn basic forms and syntax of the Latin language in a cumulative fashion, and to discern English derivatives of assigned vocabularies, thereby increasing the student's English vocabulary.

Honors Latin 2 (42412211)**Prerequisite(s): Latin 1**

This course continues to build the Latin vocabulary by 400-500 words as well as the study of basic grammar and introduces the student to the Roman historians, Livy and Caesar.

Advanced Program Latin 2 (42412291)**Prerequisite(s): Advanced Program Latin 1**

This course continues the study of fundamental Latin grammar as well as more complex syntax including the subjunctive mood and clauses, infinitives and indirect discourse, and participles.

Honors Latin 3 (42412331)**Prerequisite(s): Latin 1 and 2**

A study of composition develops greater sophistication in the handling of Latin grammar and includes the scansion of Latin poetry.

Advanced Program Latin 3 (42412391)**Prerequisite(s): Advanced Latin 1 and Latin 2**

This course increases the student's ability to translate, comprehend, and appreciate more difficult Roman prose.

Advanced Program Latin 4 (42412491)**Prerequisite(s): Advanced Latin 1, Latin 2, and Latin 3**

Latin IV continues the development of an appreciation of Latin poetry. Through the reading of Virgil's AENEID (Books I, II, IV and VI), the student becomes aware of the author's skill in the creation of mood and the effect of the poetic meter.

Advanced Placement Latin Literature (42412761)**Prerequisite(s): Advanced Program Latin 1, 2, and 3**

The student acquires an understanding of poetic devices and increases knowledge of Roman and Greek mythology through the translation of selected books from Virgil's AENEID

Honors Spanish 1 (42419131)**Prerequisite(s): None**

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Advanced Program Spanish 1 (42419191)**Prerequisite(s): None**

The course emphasizes the student's initial development of the interpersonal, interpretative, and presentational modes of communication and an understanding of other people's worldviews, their way of life, and their patterns of behavior.

Honors Spanish 2 (42419231)**Prerequisite(s): Spanish 1 or demonstrated proficiency.**

The course offers students opportunities to improve in the three modes of communication and increase their knowledge and understanding of the relationship of cultural products, practices, and perspectives of the Spanish-speaking world.

Advanced Program Spanish 2 (42419291)**Prerequisite(s): Advanced Spanish 1 or demonstrated proficiency.**

The course offers students opportunities to improve in the three modes of communication and increase their knowledge and understanding of the relationship of cultural products, practices, and perspectives of the Spanish-speaking world.

Honors Spanish 3 (42419331)**Prerequisite(s): Spanish 1 and 2**

This course continues with the development of the three modes of communication with the introduction of specialized vocabulary and advanced language structures.

Advanced Program Spanish 3 (42419391)**Prerequisite(s): Advanced Spanish 1 and 2**

Students will expand cultural knowledge and learn to interpret the varied products of Spanish-speaking civilizations, such as music, films, newspapers, literary texts, architecture, and inventions, in terms of underlying cultural values and attitudes.

Advanced Program Spanish 4 (42419491)**Prerequisite(s): Advanced Spanish 1, 2, and 3**

Students will explore the interrelationship of ideas and values in order to explain "why" and to anticipate "how" particular cultures will respond to events, problems, and questions.

Advanced Placement Spanish Language (42419661)**Prerequisite(s):** Instructor recommendation and *Advanced Spanish 1, 2, 3, and 4*

This is a course designed for the later years of secondary school study at Manual. Students will develop Spanish usage and skills in appropriate cultural contexts using a variety of authentic materials. Note: College level curriculum taught in a high school setting

Conversational Spanish/Honors Spanish 5 (42419531)**Prerequisite(s):** Spanish 1, 2, 3, and 4

This course allows students to refine the three modes of communication via a continued, richer study of the history and culture of Spanish-speaking peoples. This course will help students analyze the social, economic, geographic, and historical factors that affect cultural products and practices in various Spanish-speaking countries. The emphasis is on proficient communication in the language. Note: Includes a service learning component.

Advanced Program Humanities in Spanish (42470181)**Prerequisite(s):** Successful completion of prior Spanish courses, Instructor Approval

This is a course presenting the core content of the *Advanced Program* Humanities course, but contextualized and taught in the target language of Spanish. The course is designed to fulfill two course credits for Manual seniors.

American Sign Language 1 (42401111)**Prerequisite(s):** None.

This course is designed for students to learn the basics of American Sign Language, the visual-spatial language used by deaf people in the United States and most provinces of Canada.

American Sign Language 2 (42401211)**Prerequisite(s):** American Sign Language I

The focus of the course is on increasing receptive and expressive American Sign Language skills, enhancing communication with deaf students, and on becoming familiar with issues related to deafness.

COMMUNICATIONS MEDIA ARTS

(Classes for major students and elective courses for students from other magnets)

Journalism 1/Intro to Mass Communications (42313111)**Prerequisite(s):** None

This course provides an overview of the mass communications field with an emphasis on journalism and news media. This class is required for all CMA students.

Desktop Publishing (Listed as Eng Graph Arts/Desktop) (4233801)**Prerequisite(s):** none

Students will learn the elements and principles of design and learn to apply them using various software tools, including Adobe In Design, Adobe Photoshop, and Adobe Illustrator. Availability: The course is open to other majors permitting computer availability.

Oral Communications/Debate (42351311)**Prerequisite(s):** None

Students will learn the fundamentals of public speaking, create and perform several different kinds of speeches, and become versed in persuasive speaking and debating.

Journalism 2 (Journalistic Writing) (42323111)**Prerequisite(s):** Journalism 1

This course is a prerequisite for yearbook, newspaper, and broadcasting. It may be taken concurrently with those classes. Students learn how to write news, features, and editorials.

Broadcast 1 (listed as Broadcast Journalism 3) (42331411)**Prerequisite(s):** Journalism 1 & Journalism 2 (can be concurrently enrolled); Oral Communication and Debate (can be concurrently enrolled).

The basics of video editing and broadcast journalism are introduced in this class.

Broadcast 2 (listed as Broadcast Journalism 4) (42341411)**Prerequisite(s):** Broadcast 1

During the first semester, the seniors in this class will produce news stories to be aired on Manual's weekly TV show Manual AM. During the second semester, students will focus on creating short documentaries about local issues.

Creative Video Production (Listed as Film & Video Editing) (45803541)**Prerequisite:** none

Students will learn the visual language of video with the goal of producing their own creative video projects, including short films, public service announcements, parodies, and music videos.

Yearbook 1, 2, and 3**Prerequisites:** Desktop Publishing, Journalism 2 (can be concurrently enrolled).**Qualifying experience may be substituted for prerequisites at instructor's discretion.**

Yearbook is both an elective course and extracurricular activity for high achieving; self-motivated students who seek to continue the yearbook's national award-winning achievements.

Newspaper (Listed as Journalism 3, 42333111)**Prerequisites:** Desktop Publishing, Journalism 2 (can be concurrently enrolled).

Students in this course will produce Manual's award-winning student newspaper, *The Crimson Record*, monthly.

Editorial Leadership (Listed as Journalism 4, 42341411)

Prerequisite: Concurrent enrollment in Yearbook, Broadcast, Newspaper, Online Media, or Creative Writing, along with an editorial or managerial position and permission from the course instructor. Taking students beyond the day-to-day responsibilities of publishing and producing, the course offers support to student publication leaders while emphasizing the skills necessary to be successful editors.

Photojournalism I and II (42350511)**Prerequisite(s):** none

This course focuses on learning how to shoot with single lens reflex (SLR) digital cameras, learning composition and how to use the camera's creative modes (manipulating shutter speed, ISO, and aperture).

Multimedia (Listed as Writing Comp/Desktop Publishing) (42327111)**Prerequisites:** Desktop Publishing, Journalism II (can be concurrently enrolled).

Students will get hands-on experience in reporting and producing stories for the twenty-first century media environment.

Film Studies (Listed as English Special Topics) (42350211)**Prerequisite(s):** none

Students will learn the methods of viewing a film critically while fostering an ability to appreciate and analyze various films from different eras and genres. Students will analyze films, review them with a critical eye; write extensively about the films they watch; and compare films from different viewpoints, eras, and genres.

MATHEMATICS, SCIENCE, & TECHNOLOGY

(Classes for major students and elective courses for students from other magnets)

MST Advanced Program Geometry/Algebra II (42730391)

Prerequisite: Admission to MST, Placement test

This course is an enriched Algebra II curriculum with an in-depth study of equations and functions. It is designed for students who have completed Grade 8 Algebra I and Advanced Geometry.

MST Advanced Program Integrated Science (44010991)

Prerequisite(s): Admission to MST

This course is an inquiry based interdisciplinary course that emphasizes topics in conceptual physical and earth science within a laboratory setting.

Advanced Computer Applications (45025941)

Prerequisite(s): This course is required for all MST students! This course is a computer literacy course designed for students who have been accepted into the MST magnet at duPont Manual High School.

MST Advanced Program Algebra II/Trigonometry (42720391)

Prerequisite: Successful completion of MST Algebra II

This course provides students with opportunities to make conjectures about geometric situations and prove in both formal and informal ways to form a logical conclusion of their hypothesis.

MST Advanced Program Chemistry (44230991)

Prerequisite(s): MST Geometry/Trigonometry

This course explores topics such as equations, equilibrium (theory and quantitative treatment) kinetics, thermodynamic relations, organic chemistry, chemical calculations, and descriptive chemistry.

Introduction to Computer Programming (45639911)

Prerequisite(s): Computer applications, Algebra I

This course covers the concepts basic to computer science: data representation and encapsulation, substitution, composition of functions, iteration, recursion, and algorithmic analysis.

Web Design (45631241)

Prerequisite(s): Instructor Approval

This course is designed for students who want to learn how to plan and create well-designed Web pages that combine effective navigation with the use of graphics, text, and colors.

MST Advanced Program Pre-Calculus/Calculus (42740391)

Prerequisite(s): MST Geom. /Algebra II and MST Algebra II/Trig.

This course explores topics such as advanced theory of functions with an emphasis on graphing techniques, algebraic theory, advanced geometry and trigonometry, limits and an introduction to differential calculus.

MST Advanced Program Biology (44120991)

Prerequisite(s): Admission to MST

This course is a college-level course. Topics include cellular structure and function, photosynthesis, genetics, classification, metabolic physiology, ecology, and ethology.

Advanced Placement Computer Science (45640761)

Prerequisite(s): Computer Applications, Intro to Computer Programming

This course follows the College Board AP Computer Science curriculum and covers the basic concepts common to the first-year sequence in most college computer science majors. Note: College level curriculum taught in a high school setting

Special Topics in Computer Science (45641341)

Prerequisite(s): AP Computer Science (May be taken concurrently), Instructor Approval

Special Topics in Computer Science covers topics in programming, user interface design, and operating systems beyond those covered in the Introduction to Computer Programming and AP Computer Science courses.

Advanced Placement Calculus B/C (42750461)

Prerequisite(s): MST Algebra II, MST Geometry/Trigonometry, and MST Pre-Calculus/Calculus

This course follows the College Board curriculum. Note: College level curriculum taught in a high school setting.

MST Advanced Program Physics (44340991)

Prerequisite(s): MST Algebra II

This course is a college-prep physics course is designed for the student who has completed algebra and has had an introduction to the definitions of sine, cosine and tangent.

Advanced Placement Physics B (44350361)

Prerequisite(s): MST Pre-Calculus/Calculus

This course provides detailed descriptions of kinematics, dynamics, rotational motion, gravity, oscillations, waves, optics, thermal physics, electrical forces, electrical potential, DC circuits, magnetic forces, atomic physics and nuclear physics.

MST Discrete Math

Prerequisite(s): MST Geometry/Trig, MST Algebra 2/Trig, MST Precalculus, and AP Calculus

This course is designed for advanced high school mathematics students who are interested in a future in business or computer applications, addressing such topics as set theory, mathematical induction, graph theory, permutations and combinations, and other topics as deemed appropriate.

Advanced Placement Biology II (44130461)

Prerequisite(s): Successful completion of Biology 1

This course follows the College Board curriculum and covers topics regularly covered in a college biology course for majors. Note: College level curriculum taught in a high school setting

Advanced Placement Environmental Science (44030061)

Prerequisite(s): Int. Science (or Chemistry), Biology

This course follows the College Board curriculum and is designed to provide students with the scientific principles, concepts, and methodologies required to understand the cycles in nature, interrelationships of the natural world, and to identify and analyze environmental problems. Note: College level curriculum taught in a high school setting

Advanced Placement Chemistry II (44240161)

Prerequisite(s): Successful completion of Chemistry 1

This course follows the College Board curriculum and covers material that would normally be covered in a college introductory chemistry course. Note: College level curriculum taught in a high school setting.

Science Independent Research (44531211)

Prerequisite(s): Instructor approval

This course involves students in both qualitative and quantitative research. The course provides interested students an opportunity for studies within the sciences field.

VISUAL ARTS

(Classes for major students and elective courses for students from other magnets)

Basic Design (4811211)

Prerequisite(s): Admission to VA

This course is an introductory yearlong intensive study of the elements and principles of design and their use through classroom projects.

Drawing and Painting I (4811221)

Prerequisite(s): Admission to VA

This course is a yearlong course for freshman offering an introductory drawing course that provides experiences in line, value, and space using a variety of media and subjects.

Visual Art I (4811001)

Prerequisite: Successful completion of middle school art or permission of local school art department

This course is the foundation course in art for the high school student. In the course, the student receives instruction in the studio areas—design, drawing, painting, printmaking, ceramics, sculpture, and textiles—that increase basic art skills developed in the middle school art program.

Folk Art and Craft (4811291)

Prerequisite(s): None

This course is a foundation course in the study of craft techniques and materials. A variety of crafts will be explored including an introduction of defining "crafts" as opposed to "fine arts".

Drawing and Painting 2 (4812221)

Prerequisite(s): Drawing and Painting I

This is a yearlong course for sophomores offering continued study in drawing techniques, providing experiences in line, value, and space using a variety of media and subjects.

Ceramics and Sculpture I (4812241)

Prerequisite(s): Basic Design

Students in ceramics construct hand built and wheel turned pieces that are glazed and fired. Sculpture students explore additions, subtraction, modeled and cast construction techniques.

Visual Art 2 (4812001)

Prerequisite: Successful completion of Visual Art I or Instructor recommendation

This is a course in which the student is involved in challenging studio problems in the arts and crafts areas and in art history, art criticism, and aesthetic material related to full development of the talent/interest of the individual.

Computer Art/Graphic Design (4813271)

Prerequisite(s): Instructor approval

This is a yearlong course using software packages and graphics computers and printers to produce computer-generated art forms.

Three Dimensional Art (4812251)

Prerequisite(s): Instructor Approval

Students work in clay, sculpture, and other three dimensional techniques and processes, exploring a variety of media, while mastering the use of technical art materials.

Drawing 3 (4813221)

Prerequisite(s): Drawing/Painting II

This is a yearlong course offering continued study in two-dimensional media with assignments planned by the Instructor and student for individual students and projects assigned to the entire class.

Studio Art 3/Textiles and Printmaking I (4813021)

Prerequisite(s): Ceramics and Sculpture I and Drawing/Painting II

The textiles semester introduces the student to surface design and fiber construction. Students explore mixed media, stitchery, and batik techniques.

Advanced Placement Studio Art Drawing (4814426)

Prerequisite(s): Successful completion of Drawing/Painting II and Instructor approval.

This course emphasizes the quality of student work, the student's concentration on a particular visual interest or problem and the student's need for breadth of experience in the formal, technical and expressive means of the artist.

Photography I (4812031)

Prerequisite(s): None

This is an introductory course in which the student is introduced to basic camera and photographic darkroom techniques.

Visual Art 3 (4813001)

Prerequisite: Successful completion of Visual Art II or Instructor recommendation.

This course is an advanced course in art in which the student works on Instructor-planned and individually selected problems to develop art and craft.

Photography 2 (4813031)

Prerequisite(s): Successful completion of Photo I and Instructor approval

This is a course in which the student refines the skills related to the production of images that reflect an understanding of composition, lighting, camera, and darkroom processes and techniques.

Painting 3 (4813211)

Prerequisite(s): Drawing III or AP Drawing Portfolio

This is a yearlong course offering continued study in two-dimensional media with assignments planned by the Instructor and student for individual students and projects assigned to the entire class.

Visual Art 4 (4814001)

Prerequisite(s): Successful completion of Visual Art III or Instructor recommendation.

This is the advanced course in art in which the student works on student-/Instructor-planned and individually selected problems to develop art and craft products that reflect the interest and talent of the individual.

Printmaking 2 (4814211)

Prerequisite(s): Textiles and Printmaking I

This is a yearlong course exploring in depth experiences in the four basic methods of graphic images: relief, lithography, intaglio, and silk screen.

Textiles 3 (4814251)

Prerequisite(s): Textiles and Printmaking

This is a yearlong course extending the Textiles I experience in surface design and fiber construction.

Advanced Placement Art History (4805096)

Prerequisite(s): None, See Art department chair with questions.

This course is designed to allow students to examine major forms of artistic expression from the past to the present in a variety of cultures. This course will satisfy the Advanced Program Humanities requirement

Advanced Placement Studio 2-D Design Portfolio (4814436)

Prerequisite(s): Successful completion of AP Studio Drawing course and Instructor approval.

This course follows the curriculum established by the College Board in preparing a portfolio of artwork that may include works in a variety of art forms that emphasizes quality, depth and breadth in 2-D design problems. College level curriculum taught in a high school setting

Advanced Studio 3-D Design Portfolio (4814446)

Prerequisite(s): completion of Visual Art I and above, 3D Art, Instructor Approval

This course follows the curriculum established by the College Board in preparing a portfolio of artwork that may include works in a variety of art forms that emphasizes quality, depth and breadth in 3-D design problems.

Visual Arts: Independent Study (4814051)

Prerequisite(s): Approval of the department chair.

This is an independent study that provides in-depth, supervised studio art to the student with recognized talent and vocational interest in the visual arts.



Main Office

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